

AMENDMENTS TO THE SPECIFICATION

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Please amend the first full paragraph beginning on line 8 as follow:

In general, between a frequency of a plasma generating electric power source for a pair of electrodes and a minimum gas pressure capable of stably discharging, there is relationship that the lowest gas pressure for stable discharge is decreased as the frequency of the electric power source is increased and the distance between the electrodes is increased. In order to avoid ill effects such as attaching of deposits onto surrounding walls and onto the discharge confining ring 37 and to effectively perform a function of removing fluorine or oxygen by the upper electrode cover 30, the susceptive cover 39 and the resist in the sample, it is preferable that the distance between the electrodes is set to a value shorter than 50 mm which corresponds to a distance smaller than 25 times of mean-free-path at the maximum gas pressure of 40 mTorr. On the other hand, in order to attain stable discharge, the distance between the electrodeelectrodes is required to be 2 to 4 times (4 mm to 8 mm) or larger of the mean-free-path at the maximum gas pressure (40 mTorr). Thus, a range of 8 mm to 50 mm is a preferred range in terms of maintaining a stable discharge while effectively removing fluorine and avoiding deposits on the walls of the apparatus.